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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech I Year II Semester Supplementary Examinations December 2018
ENGINEERING GRAPHICS

(Common to CE, EEE, ME & AGE)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1 Draw an epi-cycloid of rolling circle of diameter 40 mm which rolls outside another circle (base circle) of 150 mm diameter for one revolution. Draw a tangent and normal at any point on the curve. **12M**

OR

2 Draw a hypo cycloid of a circle of 50 mm diameter, which rolls inside another circle of 180 mm diameter for one revolution counter clockwise. **12M**

UNIT-II

3 A line AB, 50mm long, has its end A away from the HP and VP than end B. The line is inclined to the HP at 30° and to the VP at 45°. Draw the projections if end A is 35mm above the HP and 50mm in front of the VP. **12M**

OR

4 Draw the projections of a straight line AB of 70 mm long, in the following positions:
a) parallel to both HP and VP and 20 mm from each. **12M**
b) Parallel to and 20 mm above the HP and on VP
c) Parallel to and 30 mm in front of VP and on HP

UNIT-III

5 A regular hexagonal plane of 45 mm side has a corner on HP, and its surface is inclined at 45° to HP. Draw the projections, when the diagonal through the corner, which is on HP makes 30° with VP. **12M**

OR

6 A semi circular plane of diameter 70mm has its straight edge on the VP and inclined at 30° to the HP. Draw the projection of the plane when its surface is inclined at 45° to VP. **12M**

UNIT-IV

7 A hexagonal prism of side of base 30 mm and length of axis 75 mm, is resting on its base on HP. It is cut by a section plane inclined 35° to HP and passing through top corner. Draw the front and sectional top views of the solid and true shape of the section. **6M**

OR

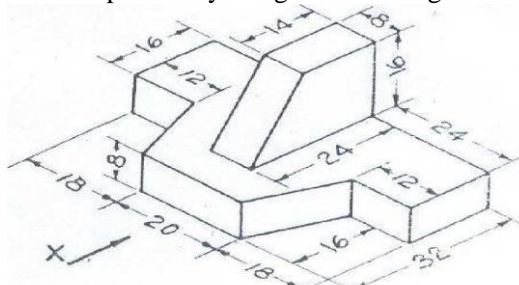
8 A square prism of side of base 40 mm and axis 80 mm long, is resting on its base on HP such that, a rectangular face of it is parallel to VP. Draw the development of the prism. **6M**

UNIT-V

9 Draw the isometric projection of a pentagonal prism of base side 35 mm and axis 60mm. The prism rests on its base on the HP with an edge of the base parallel to the VP. **12M**

OR

10 Draw three views of the blocks shown pictorially in figure according to first angle projection. **12M**



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